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Atlas of Clinical Neurology, 3rd ed.

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Atlas of Clinical Neurology, 3rd ed.

Roger N. Rosenberg, ed. Springer; 2009, 560 pages, 223 illustrations, $199.00.

For those who prefer a highly visual display and description of clinical neurology, this 560-page atlas would, at first glance, seem to be inviting; however, for those who would like to see an atlas with strong linkages between imaging and neurology, this text will be disappointing. Of course, it is fair to remember that this atlas was not designed with the neuroradiologist in mind; nonetheless, it is surprising that very little care was given to the selection of images, to the editing of images and legends, and to a more robust display of imaging correlates. I will elaborate more about these points later in the review.

In association with 55 contributors, Dr. Rosenberg has edited a highly visual description and display of many neurologic diseases. Significant emphasis has been placed on the cellular, molecular, and genetic bases of such diseases. There are 15 chapters: Development Disorders, Genetic Diseases, Neuroendocrine Disorders, Critical Care, Cerebrovascular Disease (the longest chapter — 82 pages), Dementias, Behavioral Neurology, Neuro-Oncology, Movement Disorders, Epilepsy, Neuromuscular Disease, Infections, Neuroimmunology, Neurotoxic Disorders, and Headache. The pages bristle with charts, patients, pictures, algorithms, pathology (gross anatomic), and (microscopic) drawings, and images. In total, this is keeping with the trend in textbooks to less prose and more pictures.

In this atlas, virtually all of the written material is contained in the legends for the figures (as one would expect in an atlas). Of course, that means the legends must be accurate and the images well labeled with corresponding words in the legends to let the reader know what exactly the images are trying to depict. Unfortunately, from an imaging standpoint, the atlas falls apart. The neuroradiology contents of this book have not done a service to the neurologist or neurology resident or fellow. One would have thought that with all of the prominent contributors, decent imaging would have found its way into this atlas. It is surprising that there is virtually no material on the spine; it is as if the spine and spinal cord are not part of neurology. It does not seem reasonable that one should devote pages and pages of a neurology atlas to unusual and rare diseases, as seen in genetic or developmental diseases, but have nary a word on the spine. After all, what is a neurologist more likely to see, a "hypomelanosis of Ito" or a neuropathy/myelopathy secondary to spinal disease? The atlas is imbalanced in this regard.
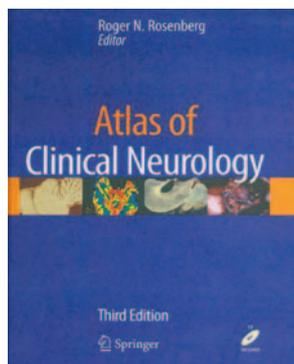
Now I will discuss the most disappointing aspect of the atlas — the neuroimaging. The editor claims that he wishes to give a "visual exposition" in all aspects of neurologic disease, including neuroradiology. In this atlas, he fell far short of that goal. First, most (but not all) of the MR and CT images selected in this book are from another era. There are many examples where fault can be found with the selection of highly dated and uninstructive images. Take the example of a central neurocytoma. This image certainly must have come from an MR imaging unit in the 1980s. Other examples of exceedingly low resolution images are replete throughout the text. In general, the CT and MR units are noisy and of low resolution. These problems with substandard images would be bad enough, but his whole issue is compounded by mislabeling and inaccuracies in the images. It would take many pages to describe all of these errors, but a few examples will suffice:

1) A T2-weighted MR image of a thrombotic endocarditis is called a *CT*.

2) There is a display of an upside-down MR image of what is called *subcortical dementia*.

3) A case called CADASIL is presented, in which the legends make the point of the specificity of white matter hyperintensities in the anterior temporal "horns" (sic), but the image does not show the temporal lobes.

4) There is failure to show apparent diffusion coefficient maps in conjunction with diffusion-weighted MR images.

5) There is a description of a "cortical infarct" in a sickler when the abnormality involves nearly the entire thickness of the cerebrum (gray and white matter).

6) Virtually uninterpretable images of the spine are presented in a patient said to have cytomegalovirus polyradiculitis.

7) A case of dementia on MR imaging is presented, but the authors call it a *CT*.

8) A cerebral angiogram with multiple arrowheads all claiming to point to branches of the posterior cerebral artery is presented, but 1 arrowhead points to the posterior inferior cerebellar artery.

9) An MR image is said to be a schwannoma, but the authors say that this is a "dual based" lesion (it is most certain that the image is a meningioma, but for some reason, they have called it a *schwannoma*).

10) A CT scan of toxoplasmosis is inaccurately called an *MR image*.

11) A case of "cerebral herniation" on CT scan is claimed to be an MR image.

12) A description of a meningioma in neurofibromatosis type II (with the tumor partly cut off) is included, with the failure to describe the additional findings or label what are probably cranial nerves V and VIII nerve sheath tumors.

The more one looks, the more errors are identified.

Perhaps if there is ever to be a fourth edition, the editor and publisher should seek a major role for a qualified neuroradiologist. Purchase of this atlas is not recommended.